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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/469,497	12/22/1999	YUICHI KUNORI	49657-5	5036

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EXAMINER

SONG, JASMINE

ART UNIT	PAPER NUMBER
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2187

DATE MAILED: 05/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/469,497

Applicant(s)

KUNORI, YUICHI

Examiner

Jasmine Song

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 is/are allowed.
- 6) ☒ Claim(s) 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 16 recites the limitation "said first and second registers" in lines 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Otsuka et al., U.S. Patent 6154393.

Regarding claim 13, Otsuka teaches that a method for reading a plurality of data from a non-volatile semiconductor memory device (Fig.5), said non-volatile semiconductor memory device including a memory cell (Fig.5, element 12) storing said plurality of data and a data output node (Fig.5, element 16) for outputting said data said method comprising the steps of:

reading a part of said plurality of data from said memory cell (Fig.5, col.8, lines 19-27);

outputting said part of said plurality of data to said data output node (Fig.5, col.8, lines 27-28);

reading another part of said plurality of data from said memory cell (Fig.5, col.8, lines 29-32); and

outputting said another part of said plurality of data to said data output node (Fig.5, col.8, lines 32-33).

Regarding claim 14, Otsuka teaches that said step of outputting said part of said plurality of data overlaps with said step of reading another part of said plurality of data (Fig.5 and Fig.8, lines 21-43).

Regarding claim 15, Otsuka teaches that a method for reading data from a non-volatile semiconductor memory device (Fig.5), said non-volatile semiconductor memory device including

- a word line (Fig.5, col.8, lines 17-18),
- first and second bit lines (Fig.5, col.8, lines 18-19),
- a first memory cell coupled to said word line and said first bit line (Fig.5, col.8, lines 21-27),
- a second memory cell coupled to said word line and said second bit line (Fig.5, col.8, lines 29-32), and
- a data output node (Fig.5, element 16) for outputting said data from said first and second memory cells, said method comprising the steps of:
 - reading first data from said first memory cell with selectively activating said word line (Fig.5, col.8, lines 19-27);
 - outputting said first data to said data output node (Fig.5, col.8, lines 27-28);
 - reading second data from said second memory cell with selectively activating said word line (Fig.5, col.8, lines 29-32); and

outputting said second data to said data output node (Fig.5, col.8, lines 32-33), wherein said step of outputting said first data overlaps with said step of reading second data (Fig.5 and Fig.8, lines 21-43).

6. Claims 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al., U.S. Patent 5890192.

Regarding claim 16, Lee teaches that a method for writing data to a non-volatile semiconductor memory device (Fig.3, element 4000), said non-volatile semiconductor memory device including a memory cell (Fig.3, element 400) storing first and second data (Fig.2, col.3, lines 46-52), said first and second registers (col.4, lines 52-55), said method comprising the steps of:

storing in said first register said first data input from the outside of said non-volatile semiconductor memory device (col.4, lines 56-60); writing said first data stored in said first register to said memory cell (col.4, lines 46-55); storing in said second register said second data input from the outside of said nonvolatile semiconductor memory device (col.4, lines 56-60); and writing said second data stored in said second register to said memory cell (col.4, lines 46-55).

Regarding claim 17, Lee teaches that said step of writing said first data overlaps with said step of storing said second data (col.1, lines 46-56).

Allowable Subject Matter

7. Claims 1-12 are allowed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al.,	6157983	12/05/2000
Wilford et al.,	5978311	11/02/1999
Miyauchi	6272052 B1	08/07/2001
Takeuchi et al.	6055188	04/25/2000
Hasegawa et al.	5892724	04/06/1999
Shin et al.	5737276	04/07/1998

9. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. 1.111 (c).

10. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasmine Song whose telephone number is 703-305-7701. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Do H Yoo can be reached on 703-308-4908. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Jasmine Song
Patent Examiner

May 20, 2002

Do Hyun Yoo
DO HYUN YOO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100